

Presentation to the Board of Forestry

December 7, 2016

A black silhouette of a forest of evergreen trees, likely spruce or fir, arranged in a line across the middle of the slide. The trees vary in height and are set against a background of light-colored wood grain.

FORESTRY CHALLENGE

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Presentation Outline

- **What is the Forestry Challenge?**
- **2016 Summary**
- **Significant Upgrades**
- **Outlook for 2017 and Beyond**



What is the Forestry Challenge?

- The Forestry Challenge is an academic competition for high school students in technical forestry and current forestry topics.**
- Participants spend four days in the forest learning about the ecology and management of the forested landscapes that provide communities with water, recreational opportunities, forest products, and wildlife habitat.**
- Youth benefit by better understanding the relationship of the forested environment to their community, by exposure to natural resource management as a potential career option, and by undertaking a rigorous critical thinking exercise.**



Goal #1: Teach students the basic principles of forestry, connecting classroom math and science to hands-on experiences with real-world applications, enabling them to make recommendations about natural resource management.



**Growth Rates
Bill Snyder**



**Fuel Quantification
Using Brown's Transects**



**Measuring
Coulter Cones**

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Goal #2: Give students the opportunity to explore careers by interacting with natural resource professionals including foresters, hydrologists, soil scientists, wildlife biologists, and fire scientists.



**Paula Randler
US Forest Service**



**Patrick McDaniel
CalFire**



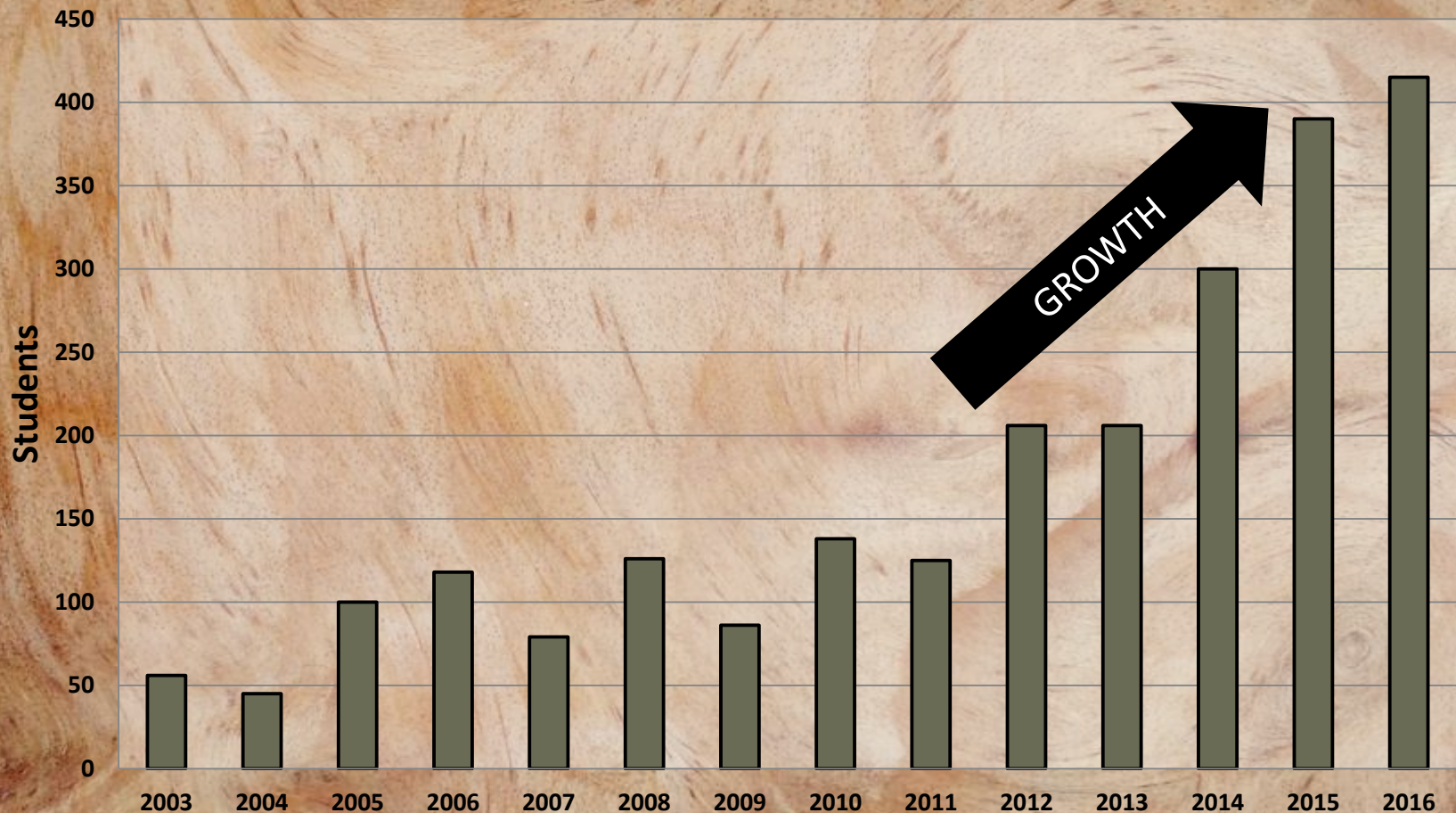
**Julie Dufresne
Big Creek Lumber Co.**

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Goal #3: Provide an opportunity for a diverse student population to experience outdoor recreation and develop an appreciation for the forest and its benefits to all.



**2016 participation was 415 students
and 84 teachers from 56 schools,
as well as 124 volunteers donating over 1,600 hours.
54% of 2016 students were female.**



**FORESTRY
CHALLENGE**

2016



**Shasta Forestry Challenge
September 28 - October 1**



**Sequoia Forestry Challenge
October 12 - 15**



**Santa Cruz Forestry Challenge
November 16 - 19**

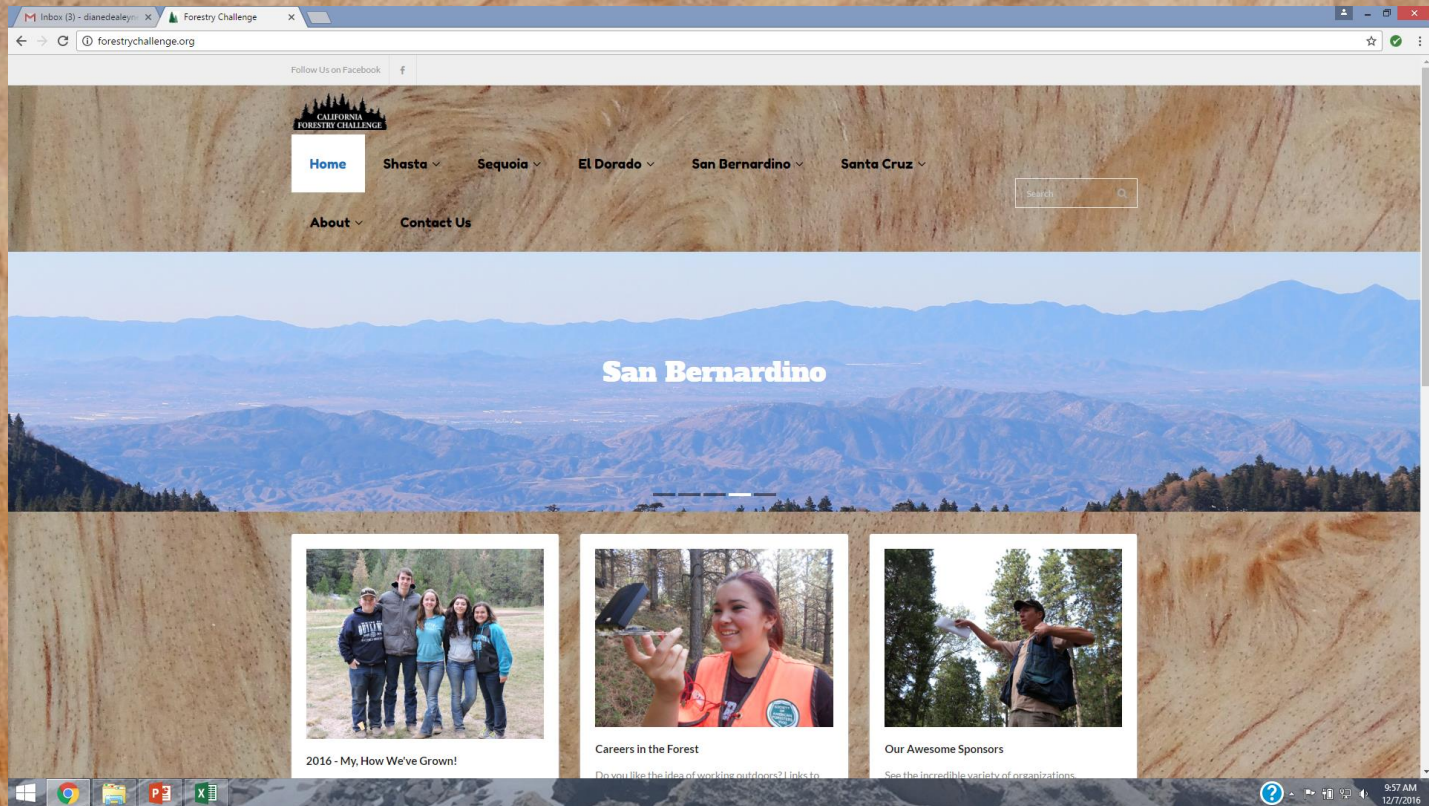


**San Bernardino Forestry Challenge
November 9 - 12**



**El Dorado Forestry Challenge
October 26 - 29**

Significant Upgrade – Website



School Name *

Primary Teacher/Chapman First and Last Name * C&F Phone Number (including Area Code) *

Which event are you registering for with this form?

- Shasta Forestry Challenge - September 28 to October 1
- Sequoia Forestry Challenge - October 12 to 15
- El Dorado Forestry Challenge - October 26 to 29
- San Bernardino Forestry Challenge - November 9 to 12
- Santa Cruz Forestry Challenge - November 19 to 22

Additional teacher/adult chapters - Submit information for each additional teacher/chapman

Chapman First and Last Name * C&F Phone Number (including Area Code)

Click here to add another teacher/chapman

Student Information - Submit information for each student

Student First Name * Student Last Name *

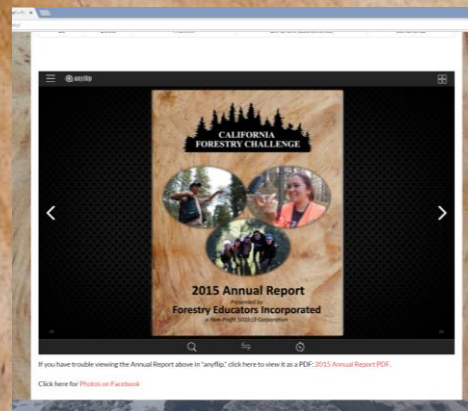
Grade * Grades * Number of years at MREC Forestry Challenge event *

Does student have any medical conditions, such as allergies, diabetes, recent injuries, etc.?

Yes No

Yes No

MSI needed for bringing prescription medications to event, such as inhalers, insulin, etc. Teachers will be responsible for holding and dispensing all



STUDENT LIFE AT FORESTRY CHALLENGE | WHAT TO BRING

DOWNLOAD RELEASE FORM FOR STUDENTS UNDER 18 | DOWNLOAD RELEASE FORM FOR ADULT STUDENTS

El Dorado Forestry Challenge Learning Objectives "FINAL"

Ecology, Botany, and Plant Identification

- Understand the fundamental life processes of plants including photosynthesis and transpiration.
- Know the basic parts of a tree and their functions.
- Understand basic ecological concepts including food webs, succession, competition, adaptation, and symbiosis.
- Be familiar with the four most common forest plant communities in California and know their approximate ranges.
- Identify with common names the following tree species without a key, and know their approximate ranges in California:
 - Ponderosa Pine
 - Sage Pine
 - Juniper Cedar
 - White Fir
 - Douglas Fir
 - California Black Oak
- Identify specific species of moss, shrubs, and herbaceous plants through the use of a dichotomous identification key. Understand local morphology.

Timber Cruising, Forest Management, and Forest Products

- Know how to use a chainsaw.
- Know how to use the following forestry tools: Billhook, Stok (limb and wing), chainsaw, (limb and wing), compass, and increment borer.
- Interpret volume and site index tables using raw data.
- Calculate tree volume and increment using a 1/10 inch diameter.
- Interpret volume and site index tables using raw data.

Significant Upgrade – Foresters and Schools



RPF Steve Cannon with Elk Grove High School

Teachers requested foresters when they pre-registered in the spring. We were able to match 46 schools with a local forester.

Significant Upgrade – Golf Cart



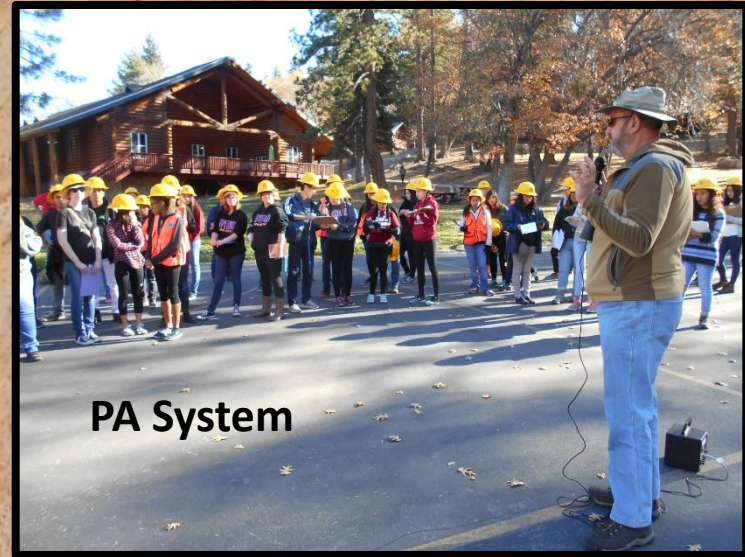
Significant Upgrade – Bin System



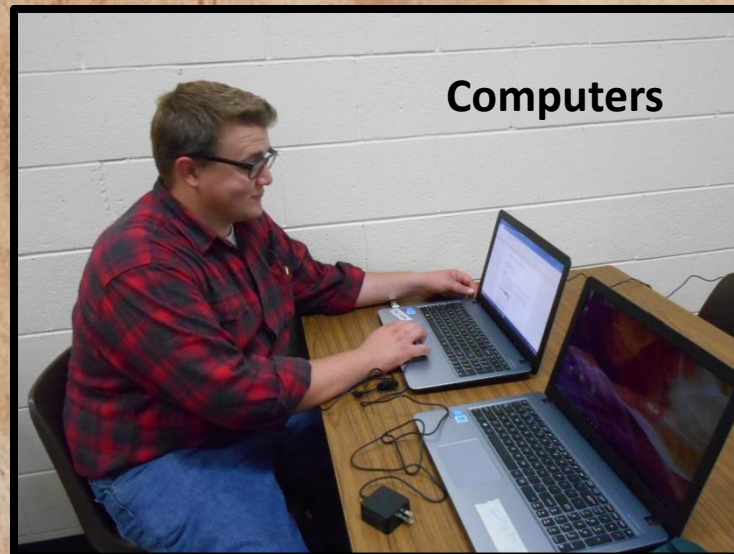
Significant Upgrade – Electronics



Projectors



PA System



Computers

Significant Upgrade – Staff and Staff Vests



Rika Piercy
Emergency Care Coordinator



Lori and Deseray – Office Staff



Staff Vests

Outlook for 2017 and Beyond



Outlook for 2017 and Beyond



Thank You!

